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DIVISION OF
OIL GAS & MINING

November 21, 1992

Tenneco Minerals
P.O. Box 2650
St. George, Utah
84770

Attention: Mr. Jim Smith, Mine Manager

ANNUAL INSPECTION OF QUAIL SPRINGS FILL DAM
GOLDSTRIKE MINE
WASHINGTON COUNTY, UTAH
FOR TENNECO MINERALS

1.0 INTRODUCTION

The Quail Springs Fill Dam was designed and constructed during the summer of 1991. The dam was required to utilize the area downstream of the dam as a haul road and a gold leach pad. There was to be no water stored in the dam, and a pump has been installed to remove any water that might pond in the reservoir area.

Construction Plans were provided to the Division of Water Rights, Utah Natural Resources. The final inspection of the dam by Mr. Hall, Division of Water Rights; Mr. Smith, Tenneco Minerals; and Mr. Toland, Design Engineer, was conducted on October 10, 1991.

2.0 OBSERVATIONS

On November 17, 1992, Mr. Toland inspected the Quail Springs Fill Dam as a part of an overall geotechnical evaluation of the Tenneco Mining operation. Photographs of the dam are presented on Plates 1 through 3.

The crest of the dam is now being used as a storage area (see Photograph 1). The upstream face of the dam will not have wave erosion and has been seeded in grass (see Photograph 2). The downstream face of dam is a flat area that contains a haul road and a leach pad (see Photograph 6).

Photograph 3 shows the barge pump that is maintained to empty any flood water that may build up in the reservoir. The emergency spillway flows directly onto the haul road on a flat slope that will not be subject to erosion (see Photograph 5). The 1991 and 1992 rainfall has been far above normal at the Goldstrike Mine. Pumping has been used this year to remove flood water from the reservoir. However, in normal rainfall years pumping will likely not be required.

1.3 CONCLUSIONS AND RECOMMENDATIONS

The Quail Springs Fill Dam and reservoir is performing well. There was no indication of stability or seepage problems. Tenneco Minerals personnel should continue to observe the dam and reservoir, and should report any seepage or embankment movement to our office. The barge pump should be maintained to remove ponded water from the reservoir during the mining operation.

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Respectfully submitted,

George C. Toland

George C. Toland, PE 2311, State of Utah

GCT/hbt

ATTACHMENTS:

Plates 1 through 3 Photographs



PHOTO 1: WIDE CREST OF DAM WHICH TIES TO HAUL ROAD AND LEACH PAD.



PHOTO 2: UPSTREAM FACE OF DAM.

PHOTOGRAPHS



PHOTO 3: PUMP BARGE WHICH REMOVES STORM FLOW.



PHOTO 4: DRY BOTTOM OF RESERVOIR.

PHOTOGRAPHS



PHOTO 5: EMERGENCY SPILLWAY



PHOTO 6: HAUL ROAD AND LEACH PAD AREA BELOW SPILLWAY.

PHOTOGRAPHS